

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045REMARKS

Claim 18 has been canceled and the subject matter thereof has been essentially combined with claim 14. Claim 29 has been canceled and the subject matter thereof has been incorporated in new claim 49. Claims 1, 21-25 and 31-34 have been amended for better syntax. Claims 1, 14, 21-25 and 31-34 have been amended to define Applicants contribution to the art with greater particularity. In addition, claims 1, 14, 21-25 and 31-34 have been amended so that the "releasing" step or operation occurs "after completion of the task," rather than "upon completion of the task." Claims 35-55 have been added to provide Applicants with the protection to which they are deemed entitled.

Claim 14, as previously presented, was not properly rejected as being anticipated by Titmuss et al., U.S. Patent Publication 2002/0025798. The Office Action incorrectly alleges that Titmuss et al., at page 7, paragraph 172, discloses a negotiation phase including an agreement of a cost for the use of shareable resources of a first network element by a second network element. The Office Action also incorrectly alleges that paragraph 172 of Titmuss et al. discloses a negotiation phase including a second network element requesting at least some shareable resources of a first network element. Instead of including the features set forth in the Office Action, paragraph 172 of Titmuss et al. indicates that after a network managing agent has set up a telecommunication call selected by an initiating party customer agent, the telecommunication service is provided at a price within the specified constraints. The service being offered is described in paragraphs 174-179 and is completely unrelated to shareable resources of a first network

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

element by a second network element, as required by claim 14 as previously presented.

The Office Action incorrectly alleges that paragraph 173 of Titmuss et al. discloses the fulfillment phase of claim 18, as previously presented. The fulfillment phase of claim 18 said there is a cooperative execution of a task by first and second network elements. Paragraph 173 indicates that a network managing agent selects a combination or resource agent which gives the best price while meeting the necessary format and other constraints. The network managing agent sets up a telecommunication call, e.g., a telephone call, accordingly. As indicated by paragraph 190 and from inspection of Fig. 13, the network managing agents do not cause sharing of the resource agents. If a network managing agent determines, in step 624 of Fig. 13, that there is a path for the call via its available converters, the network managing agent selects the path having the shortest transmission time, and/or least distortion and the terminals to be used by the initiating and destination users. If, however, the network managing agent determines, during step 624, there is no path for the call, the operations illustrated in Figures 13a and 13b are terminated since a "no" result of operation 624 leads to the "end" step at the bottom of Fig. 13b. If the network managing agent were capable of causing the resources of the network resource agents associated with it to be shared, the "no" result of step 624 would not lead to the "end" step. Consequently, Titmuss et al. fails to disclose cooperative execution of a task by first and second network elements as result of a negotiation phase including an agreement of a cost for the use of shareable resources a first and second network elements, as claim 18 required.

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

Because claim 14 was incorrectly rejected as being anticipated by Titmuss et al., claim 20, which depends on claim 14, was incorrectly rejected.

Despite the foregoing deficiencies in the rejections of claims 14, 16, 18 and 20 based on Titmuss et al., to expedite prosecution applicants have amended claim 14 to include limitations similar to the limitations previously set forth in claim 18, as well as further statements that define the protocol more specifically. Based on the foregoing, claims 14, 16, 18 and 20 were not previously and are not now anticipated by Titmuss et al.

Claims 1 and 21-24 are clearly not obvious as result of Crawley et al. U.S. Patent 5,995,503 and Titmuss et al. The Office Action states that Crawley et al. in column 4, lines 64-67 and column 5, lines 1-11 discloses broadcasting data over a network by a first network element, wherein the data indicates the resources of the first network element that are available for sharing. An inspection of this portion of Crawley et al. indicates a Link Resource Advertisement contains information regarding link resources available for a particular node in the network. The advertised available resources include available bandwidth of each link connected to the node, a delay factor associated with each link or available buffer of memory resources for the link. The Office Action erroneously states that Crawley et al., in column 5, lines 32-36, discloses the requirement of claims 1 and 21-24 for executing a task by co-operation of first and second network elements. In contrast to the statement in the Office Action, this portion of Crawley et

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

al. states when a specific quality of service request is received, the network resource information is analyzed to determine whether the requested quality of service is available. If the requested quality of service is available, resources for the quality of service path are reserved for the data flow. If the resources are not available, the requested quality of service route cannot be established. Instead, a standard path is established to the destination. Based on the foregoing, column 5, lines 32-36 of Crawley et al. has nothing to do with executing a task by co-operation of first and second network elements. Consequently, the Crawley et al. Link Resource Advertisement is not concerned with resources of a first network element that are available for sharing to execute a task by co-operation of first and second network elements. Instead, the Link Resource Advertisements are used for enabling network paths to be calculated, as discussed, *inter alia*, in the last two sentences of the Crawley et al. Abstract.

The comment in the first paragraph on page 6 of the Office Action concerning inherency of the resources of a first network element being released by a second network element upon completion of a task is inappropriate to claims 1 and 21-24 because Crawley et al. is not concerned with executing a task by co-operation of first and second network elements, as discussed *supra*.

Applicants also cannot agree that one of ordinary skill in the art would have modified Crawley et al. as a result of the disclosure in Titmuss et al. of network resource agents 122-132 submitting a price for telecommunication service if the resource agent determines it can offer the telecommunication service.

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

Crawley et al. relates to "connectionless" routing within a particular network to achieve adequate quality of service. Titmuss et al. relates to a grand multi-network solution for minimum cost routing for messages over alternative networks between users. The Crawley et al. and Titmuss et al. networks are so different from each other, and the subject matter of claims 1 and 21-24, that one of ordinary skill in the art would not have combined them to provide the subject matter of these claims.

The combination of Crawley et al. and Titmuss et al. is also wrong because it is a result of hindsight. The Examiner, after apparently reviewing Applicants' disclosure and claims, seems to have gone about looking for what he considers to be bits and pieces of Applicants' contribution to the art. From these references, the Examiner has erroneously combined them and said it would have been obvious to one ordinary skill in the art to combine the references. One of ordinary skill in the art would not have put these individual documents together to meet the requirements of claims 1 and 21-24. The Examiner points to paragraphs 11-13 of Titmuss et al. to indicate what the motivation would be to combine the references. However, this portion of Titmuss et al. indicates Titmuss et al. is concerned with a telecommunication system for routing messages in which bidding takes place in two stages. The first stage involves making an estimated bid prior to derivation of a route. If the bid is accepted, the route is established by a further bidding process. It is not seen how such a two-step bidding process is applicable to executing a task by co-operation of first and second network elements after cost for the shared resources of the first and second network elements has been negotiated by

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

these network elements, as required, for example, by claim 1.

Despite the foregoing deficiencies in the rejections of claims 1 and 21-24 based on Crawley et al. and Titmuss et al., to expedite prosecution Applicants have amended these claims to define their contribution to the art more specifically. Based on the foregoing, claims 1 and 21-24 were not previously and are not now made obvious by Crawley et al. and Titmuss et al..

The rejection of claims 3-7, that depend on claim 1, as being obvious as result of Crawley et al., Titmuss et al. and Morris et al., U.S. Patent Publication 2003/0149794 is incorrect because Morris et al. obviously fails to cure the above noted deficiencies in the rejection of claim 1 based Crawley et al. and Titmuss et al.. Morris et al. is concerned with problems related to the limited range of wireless nodes and the constraints on transmission range applicable to both peer-to-peer and other types of wireless LANs, particularly nodes which become "hidden" from others when moved outside of an existing coverage area; see paragraphs 4 and 5. Crawley et al. is concerned with providing quality of service routing functions in a network environment; see column 1, lines 7-9. Titmuss et al. is concerned with transmitting information or data content signals in multiple different formats. Because Morris et al. is directed to problems completely different from those of Crawley et al. and Titmuss et al., one of ordinary skill in the art would not have combined Morris et al. with Crawley et al. and Titmuss et al., particularly to arrive at the subject matter of claims 3-7.

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

Claims 9, 12, 13, 25 and 30-34 are clearly patentable over Crawley et al. in view of Masuoka et al., U.S. Patent No. 6,081,826. In this rejection, the Office Action again erroneously relies on column 5, lines 32-36 of Crawley et al. to disclose executing a task by co-operation of first and second network elements. As noted above in connection with the rejection of claims 1 and 21-24, Crawley et al. does not disclose co-operation of first and second network elements to execute a task, particularly a task to be performed by a second network element. On this basis alone, the rejection of claims 9, 12, 13, 25 and 30-34 is incorrect.

The application of Masuoka et al. to claims 9, 12, 13, 25 and 30-34 is also incorrect. The Office Action relies on column 22, lines 49-52 of Masuoka et al. to disclose "completing a task at a first network element by using resources at a second network element." In each of independent claims 9, 25 and 30-34, the second network element requests available resources of a first network element and the first network element completes a task by using resources at the second network element. Column 22, lines 49-52 of Masuoka et al. does not disclose such an arrangement or operation. Instead, this portion of Masuoka et al. merely states that after completion of cooperative processing of applications 1 and 2 the expansive environment necessary for the cooperative processing is canceled.

The relied upon portion of Masuoka et al. has no disclosure of a requesting network element that requests available resources (i.e., the second network element of claims 9, 25 and 30-34) cooperating with a sharing network element having available resources (i.e., the first network element of these

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

claims) in such manner that the sharing network element completes the task of the requesting network element. Masuoka et al. uses a resource manager, referred to as an "environment manager" to manage shareable resources for an entire network as discussed, for example, in column 7, lines 18 - column 10, line 51. Applications on computers within the network contact the resource manager to determine if resources are available on other computers in the network. If other resources are available, the environment manager enables release of the resources to the contacting computers. Based on the foregoing, the rejection of independent claims 9, 25 and 30-34 and claims 12 and 13 that depend on claim 9 is incorrect.

New claims 35-42 are directed to networks and methods employing three network elements, as discussed on page 9, lines 4-11 of the application as filed. Claims 44-53 and 55 are dependent claims adding piconet features to the claims upon which they depend. The piconet feature is disclosed in the application as filed on page 6, line 24. Claim 43 specifically defines the network as including first and second nodes respectively including first and second transmitter/receiver arrangements for exchanging signals (a) concerned with negotiating a cost to the second network node of resources of the first network node available for sharing to assist in performing the task of the second network node and (b) for thereafter enabling the resources of the first network node available for sharing to be used cooperatively with resources of the second network node to assist in performing the task of the second network node. Claim 54 requires the network to include first and second nodes respectively having first and second transmitter/receiver arrangements that exchange signals for

HP Reference: 30004771-1 US

U.S. PATENT APPLN. NO.
09/715,045

enabling the resources of the first network node available for sharing to be used cooperatively with resources of the second network node such that the first network node completes the task of the second network node.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are respectfully requested and deemed in order.

To the extent necessary, a petition for a one-month extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

LOWE HAUPTMAN GILMAN & BERNER, LLP



Allan M. Lowe Registration No. 19,641

Customer Number: HP 22879
1700 Diagonal Road, Suite 300
Alexandria, Virginia 22314
(703) 684-1111
(703) 518-5499 Facsimile
September 20, 2004
AML/mka